

# **Washington Department of Ecology Everett Smelter Site Summer 1999 Cleanup**

## **Details of Cleanup Activities**

The Department of Ecology (Ecology) cleaned up the yards of ten homes within the Everett Smelter Site in the summer of 1999. The cleanup was conducted according to the *Everett Smelter Site: Integrated Draft Cleanup Action Plan and Draft Environmental Impact Statement for the Upland Area*. The cleanup plans were made final in November 1999. The final plans contain no substantive differences from the draft plans.

This report describes the cleanup actions that were conducted, what arsenic-contaminated soil was not removed, and where it remains for the following location:

Property Owners: Dave and Jeanne Taylor

Address:  
538/556 East Marine View Drive  
Everett, WA 98201

Snohomish County  
State of Washington  
Tax Parcel No. # 3966-000-013-0001, # 3966-000-015-0009, and # 3966-000-012-0002

This property was divided by Ecology into four Decision Units, A, B, C, and D, as shown on the attached map, for purposes of pre-cleanup sampling and decision-making regarding the depth to which excavation was required. The following is a summary of the work done in the remediation of the property within each of the decision units.

### Decision Unit: A

Results of pre-cleanup sampling indicated 18 inches of soil were to be excavated from within this decision unit. Attachment B shows that below 18 inches, composite sample analysis results are below the remediation levels of 60 and 150 parts per million (ppm). However, because the soil below 18 inches contains arsenic levels above the cleanup level of 20 ppm, a geofabric marker was placed.



Field measurements by the Ecology on-site coordinator confirmed that soil was removed to a depth of 18 inches. The excavation was sloped away from the foundation of the house at approximately a 1:1 slope, in order to protect the integrity of the structure. A block wall was constructed at the foot of the steep embankment, near the western side of the property. This allowed contaminated soil likely exposed in the embankment to be effectively isolated by the wall and beneath backfill material placed behind the wall. After laying a geofabric marker over the area excavated, backfilling with clean backfill material was carried out, as described in the *Specifications for Everett Residential Soil Remediation*. Topsoil was then placed, and sod planted.

#### Decision Unit: B

Results of pre-cleanup sampling indicated 30 inches of soil were to be excavated from within this decision unit. Attachment B shows that below 30 inches, results of composite and discrete sample analyses are below the remediation levels of 150 and 500 (ppm) respectively. However, because the soil below 30 inches contains arsenic levels above the cleanup level of 20 ppm, a geofabric marker was placed. During the course of excavation, an old septic tank was encountered along the northern side of the existing home. The tank was pumped by a septic-tank servicing company; it was then removed and the pit backfilled with clean sand. To facilitate excavation, the concrete steps and walk, leading from the sidewalk along East Marine View Drive to the older home, were removed and then rebuilt after the completion of excavation and backfilling. The tree located at the southern end of the decision unit was removed during excavation.

Field measurements by the Ecology on-site coordinator confirmed that soil was removed to a depth of 30 inches. Within the dripline of the large oak tree only sod and a few inches of soil were removed; beyond the dripline 30 inches were excavated. Approximately 20 to 24 inches were removed over utility lines adjacent and parallel to the sidewalk on the east side of property. The excavation was sloped approximately 1:1 away from the foundation of the older house, in order to maintain the integrity of the structure. A system of two parallel block walls was constructed, one at the foot of the steep embankment, and the other part way up the steep embankment, near the eastern side of the property, along East Marine View Drive. This allowed contaminated soil likely exposed in the embankment to be effectively isolated by the walls and beneath backfill material placed behind the walls. After placing a geofabric marker over the excavated area, backfilling with clean backfill material was carried out, as described in the *Specifications for Everett Residential Soil Remediation*. Topsoil was then placed, and sod planted.

#### Decision Unit: C

Results of pre-cleanup sampling indicated 24 inches of soil were to be excavated from within this decision unit. Attachment B shows that below 24 inches, composite sample analysis results are below the remediation level of 150 ppm. However, because the soil



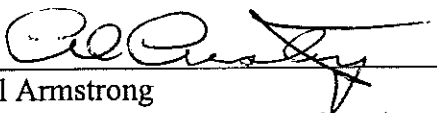
below 24 inches contains arsenic levels above the cleanup level of 20 ppm, a geofabric marker was placed. In order to facilitate excavation, trees shown on attachment A were removed.

Field measurements by the Ecology on-site coordinator confirmed that soil was removed to a depth of 24 inches. A series of block walls was constructed within this decision unit in order to retain the steep slopes along the western side of the property, and to isolate contaminated soil, likely exposed in the embankment, behind the walls and beneath backfill material placed behind the walls. After laying a geofabric marker over the area excavated, backfilling with clean backfill material was carried out, as described in the *Specifications for Everett Residential Soil Remediation*. Topsoil and sod were placed in the portion of the decision unit closest to the newer house, and crushed rock placed in the area immediately above the largest of the block walls.

#### Decision Unit: D

Results of pre-cleanup sampling indicated 36 inches of soil were to be excavated from within this decision unit. Attachment B shows that below 36 inches, composite sample analysis results are below the remediation level of 150 ppm. Because the soil below 36 inches contains arsenic levels below the cleanup level of 20 ppm, a geofabric marker was not required within this decision unit. In order to facilitate excavation, trees and bushes along the southern boundary were removed. The steps leading to the north entrance of the newer house were removed, and replaced after completion of excavation. An air-conditioning unit located at the southern side of the house was removed by the owner before the start of excavation.

Field measurements by the Ecology on-site coordinator confirmed that soil was removed to a depth of 36 inches. Backfilling with clean backfill material was carried out, as described in the *Specifications for Everett Residential Soil Remediation*. Topsoil was then placed and sod planted.

  
Al Armstrong  
Washington Department of Ecology

December 13, 1999

ATA:aa

Attachments: A. Site Map  
B. Graphs of Arsenic concentration vs. depth (2 pages)  
C. Explanation of graphs

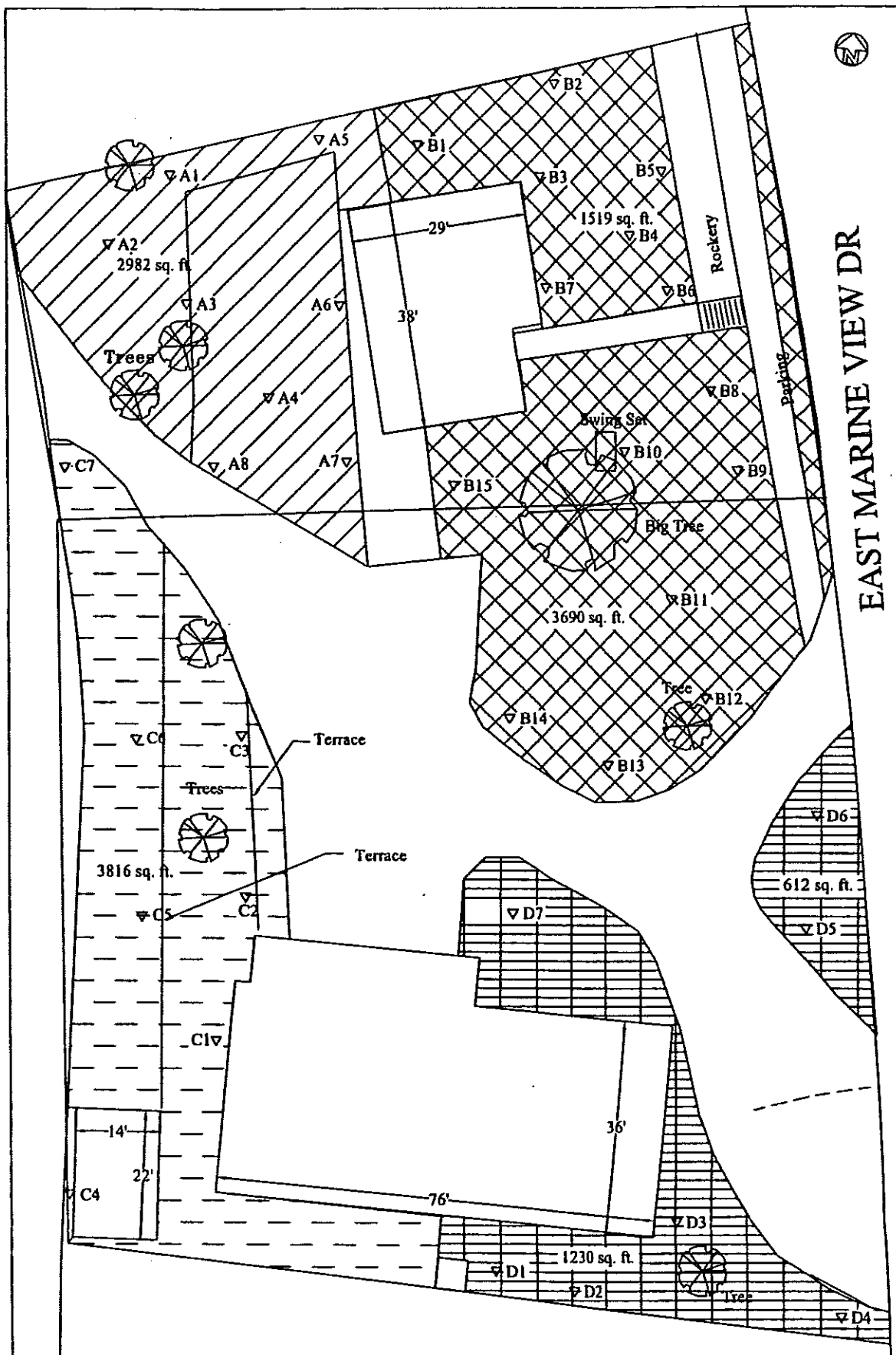


Note: If the attachments listed above do not accompany this document, copies may be obtained from Ecology. Please contact Sally Perkins, Central Files of Ecology's Northwest Regional Office (NWRO), at (425) 649-7190 for information on obtaining copies.

cc: Ecology Central Files, NWRO  
Mary Sue Wilson, Assistant Attorney General  
Mike Young, Snohomish Health District  
City of Everett  
Snohomish PUD  
Northeast Everett Community Organization  
Northwest Everett Neighborhood Association











538 EAST MARINE VIEW DRIVE

Scale 1" = 20'

-  Decision Unit A
-  Decision Unit B
-  Decision Unit C
-  Decision Unit D

